

LISTING OF CLAIMS:

1. (Previously Presented) Heat transfer fluid, for use over a broad range of temperatures, consisting essentially of a component selected from the group consisting of:

- (a) a mixture of at least two structurally non-identical saturated cycloalkane-alkyl or -polyalkyl components, wherein the cycloalkane moiety contains from 5 to 8 carbon atoms, the alkyl moiety contains from 1 to 6 carbon atoms with the proviso that the total number of carbon atoms in the alkyl moiety(ies) on the cycloalkane-alkyl and cycloalkane-polyalkyl compounds together is in the range of from 1 to 10;
- (b) a mixture of, at least, two structurally non-identical saturated aliphatic hydrocarbons having a linear or branched chain with from 5 to 15 carbon atoms; and
- (c) a mixture of, at least, a saturated cycloalkane-alkyl or -polyalkyl, wherein the cycloalkane moiety contains from 5 to 8 carbon atoms, the alkyl moiety contains from 1 to 6 carbon atoms with the proviso that the total number of carbon atoms in the alkyl moiety(ies) on the cycloalkane-alkyl and cycloalkane-polyalkyl compounds together is in the range of from 1 to 10, and a saturated aliphatic hydrocarbon having a linear or branched chain with from 5 to 15 carbon atoms;

at a level such that the composition has: a cloud point below -100 °C.; a vapor pressure, at +175 °C., below 1300 kPa; and a viscosity, measured at the cloud point temperature +10 °C., below 400 cP.

2. (Original) The heat transfer fluid in accordance with claim 1 wherein the alkyl moiety in the cycloalkane-alkyl or -polyalkyl component is selected from methyl, ethyl and propyl and mixtures thereof.

3. (Previously Presented) The heat transfer fluid in accordance with claim 1, wherein the aliphatic hydrocarbon in the mixture of, at least, two structurally non-identical saturated aliphatic hydrocarbons having a linear or branched chain contains from 5 to 10 carbon atoms.

4. (Previously Presented) The heat transfer fluid in accordance with claim 1 wherein the viscosity is below 300 cP.

5. (Previously Presented) The heat transfer fluid in accordance with claim 1 wherein the vapor pressure, at +175 °C., is below 827 kPa.

6. (Original) The heat transfer fluid in accordance with claim 1 wherein the cycloalkane-alkyl component is represented by: cyclohexane-methyl, -dimethyl, -ethylmethyl, -trimethyl, -ethyl and -propyl; cyclopentane-methyl, -dimethyl, -ethylmethyl, -trimethyl, -ethyl and -propyl; cycloheptane-methyl, -dimethyl, -ethylmethyl, -trimethyl, -ethyl and -propyl; and cyclooctane-methyl, -dimethyl, -ethylmethyl, -trimethyl, -ethyl and -propyl.

7. (Original) The heat transfer fluid in accordance with claim 1 wherein the aliphatic alkane is represented by: pentane-2,2,4-trimethyl; pentane-2,3,4-trimethyl; pentane-2-methyl, pentane-3-methyl; hexane-2-methyl; hexane-3-methyl; n-hexane; hexane-2,2-dimethyl; hexane-3,3-dimethyl; n-heptane; heptane-4-methyl; n-octane; and octane-2-methyl.

8. (Currently Amended) The heat transfer fluid in accordance with claim 1 wherein the weight ponderal ratio of the structurally non-identical cycloalkane components is in the range of from 95 : 5 to 5 : 95.

9. (Original) The heat transfer fluid in accordance with claim 8 wherein the cycloalkane components are represented by combinations of:

ethylcyclopentane/ethylcyclohexane; ethylcyclopentane/n-propylcyclohexane;
methylcyclohexane/ethylcyclohexane; methylcyclohexane/n-propylcyclohexane;
ethylcyclohexane/n-propylcyclohexane; and methylcyclohexane/ethylcyclopentane.

10. (Currently Amended) The heat transfer fluid in accordance with claim 1 wherein the weight ponderal ratio of the cycloalkane component to the aliphatic hydrocarbon is in the range of from 97 : 3 to 10 : 90.

11. (Currently Amended) The heat transfer fluid in accordance with claim 8 wherein the weight ponderal ratio of the cycloalkane components is in the range of from 75 : 25 to 25 : 75.

12. (Currently Amended) The heat transfer fluid in accordance with claim 10 wherein the weight ~~ponderal~~ ratio of the cycloalkane component to the aliphatic hydrocarbon is in the range of from 80 : 20 to 25 : 75.

13. (Currently Amended) The heat transfer fluid in accordance with claim 12 wherein the weight ~~ponderal~~ ratio of the cycloalkane component to the aliphatic hydrocarbon is in the range of from 70 : 30 to 35 : 65.

14. (Previously Presented) The heat transfer fluid in accordance with claim 1 wherein the weight ratio of the aliphatic hydrocarbon to the cycloalkane component is in the range of from 90 : 10 to 60 : 40, whereby the aliphatic hydrocarbon is selected from 2-methylpentane, 3-methylpentane, 2,2,4-trimethylpentane and n-hexane and the cycloalkane component is selected from ethyl-cyclohexane and methyl-cyclohexane.

15. (Previously Presented) The heat transfer fluid in accordance with claim 1 wherein the cloud point of the composition is in the range of from -110 °C. to -175 °C.

16. (New) Heat transfer fluid, for use over a broad range of temperatures, consisting essentially of a mixture of at least two structurally non-identical saturated cycloalkane-alkyl or -polyalkyl components, wherein the cycloalkane moiety contains from 5 to 8 carbon atoms, the alkyl moiety contains from 1 to 6 carbon atoms with the proviso that the total number of carbon atoms in the alkyl moiety(ies) on the cycloalkane-alkyl and cycloalkane-polyalkyl compounds together is in the range of from 1 to 10 at a level such that the composition has: a cloud point below -100 °C.; a vapor pressure, at +175 °C., below 1300 kPa; and a viscosity, measured at the cloud point temperature +10 °C., below 400 cP.

17. (New) The heat transfer fluid in accordance with claim 16 wherein the alkyl moiety in the cycloalkane-alkyl or -polyalkyl component is selected from methyl, ethyl and propyl and mixtures thereof.

18. (New) The heat transfer fluid in accordance with claim 16 wherein the weight ratio of the structurally non-identical cycloalkane components is in the range of from 95 : 5 to 5 : 95.

19. (New) Heat transfer fluid, for use over a broad range of temperatures, consisting essentially of a mixture of, at least, a saturated cycloalkane-alkyl or -polyalkyl, wherein the cycloalkane moiety contains from 5 to 8 carbon atoms, the alkyl moiety contains from 1 to 6 carbon atoms with the proviso that the total number of carbon atoms in the alkyl moiety(ies) on the cycloalkane-alkyl and cycloalkane-polyalkyl compounds together is in the range of from 1 to 10, and a saturated aliphatic hydrocarbon having a linear or branched chain with from 5 to 15 carbon atoms, at a level such that the composition has: a cloud point below -100 °C.; a vapor pressure, at +175 °C., below 1300 kPa; and a viscosity, measured at the cloud point temperature +10 °C., below 400 cP.

20. (New) The heat transfer fluid in accordance with claim 1 wherein the weight ratio of the cycloalkane component to the aliphatic hydrocarbon is in the range of from 97 : 3 to 10 : 90.